

AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (previously presented) An electrolytic capacitor comprising a capacitor element impregnated with an electrolyte solution, wherein the capacitor element contains a wound anode electrode foil and a wound cathode electrode foil, which are connected to an anode tab and to a cathode tab respectively, with an intervening separator, and wherein the capacitor element is housed in a cylindrical outer case with a bottom, and an open end of the outer case is sealed by a sealing member, wherein the electrolyte solution contains aluminum tetrafluoride salt, and wherein the cathode electrode foil shows greater noble electrode potential than an electrode potential of the cathode tab in said electrolyte solution.
2. (previously presented) An electrolytic capacitor according to claim 1, wherein the cathode electrode foil is an aluminum foil with a layer 0.02-0.1 μm thick coated on its surface, wherein the layer is made of a metal nitride or a metal, and wherein the metal nitride is selected from the group consisting of titanium nitride, zirconium nitride, tantalum nitride and niobium nitride and the metal is selected from the group consisting of titanium, zirconium, tantalum and niobium.
3. (currently amended) An electrolytic capacitor according to claim 1, ~~additionally comprising an~~ wherein an anode lead wire electrically contacts the anode electrode foil ~~provided with an anode leading means~~ and a cathode lead wire electrically contacts the cathode electrode foil ~~provided with a cathode leading means~~, wherein the cathode ~~leading means~~ lead wire is made of aluminum of more than 99.9% of purity, and wherein the cathode electrode foil is made of aluminum subjected to a chemical treatment.
4. (currently amended) An electrolytic capacitor according to claim 1, ~~wherein the electrolyte solution contains aluminum tetrafluoride salt, and wherein the anode electrode foil, the cathode electrode foil or both are subjected to a phosphate treatment.~~

5. (previously presented) An electrolytic capacitor according to claim 1, wherein the sealing member comprises a partial cross-linking peroxide butyl rubber which is formed by adding peroxide as a cross-linking agent to a butyl rubber polymer, wherein the butyl rubber polymer comprises a copolymer of isobutylene, isoprene and divinylbenzene.
6. (previously presented) An electrolytic capacitor according to claim 2, wherein the sealing member comprises a partial cross-linking peroxide butyl rubber which is formed by adding peroxide as a cross-linking agent to a butyl rubber polymer, wherein the butyl rubber polymer comprises a copolymer of isobutylene, isoprene and divinylbenzene.
7. (previously presented) An electrolytic capacitor according to claim 3, wherein the sealing member comprises a partial cross-linking peroxide butyl rubber which is formed by adding peroxide as a cross-linking agent to a butyl rubber polymer, wherein the butyl rubber polymer comprises a copolymer of isobutylene, isoprene and divinylbenzene.
8. (previously presented) An electrolytic capacitor according to claim 4, wherein the sealing member comprises a partial cross-linking peroxide butyl rubber which is formed by adding peroxide as a cross-linking agent to a butyl rubber polymer, wherein the butyl rubber polymer comprises a copolymer of isobutylene, isoprene and divinylbenzene.
9. (new) An electrolytic capacitor according to claim 1, wherein the cathode electrode foil is coated with a layer of titanium nitride in the range of about 0.02 micrometers to about 0.1 micrometers thick and wherein the cathode tab is constructed from aluminum being at least 99% pure.